



Features

- Fast acting
- Small size
- Stable breakdown throughout life
- Designed to operate with TBU® devices
- RoHS compliant* versions available
-  UL Recognized

Applications

- Telecommunications
- Industrial electronics
- Avionics

2031-xxT-SM Series - Miniature 2-Pole Gas Discharge Tube

Characteristics

Characteristic	Model No.		
	2031-15T	2031-23T	2031-42T
Minimum DC Sparkover (100 V/s) Throughout Service Life	60 V	185 V	360 V
Maximum Impulse Sparkover (5k V 1.2/50 μ s) Throughout Service Life	500 V	650 V	850 V

Insulation Resistance (IR)	50 / 100 V	> 10 ⁹ Ω
Glow Voltage	10 mA	~ 70 V
Arc Voltage	>1 A	~ 10 V
Glow-Arc Transition Current		< 0.5 A
Capacitance	1 MHz	< 1 pF
DC Holdover Voltage (Network Applied per ITU-T K.12)		
2031-15T	52 V	< 150 ms
2031-23T	80 V	< 150 ms
2031-42T	135 V	< 150 ms
Service Life	8/20 μ s, 1 kA	2 operations
	10/1000 μ s, 1 kV, 100 A	50 operations
	2/10 μ s, 5 kV, 500 A	20 operations
	10/700 μ s, 6 kV, 150 A	10 operations
	8/20 μ s 250 A, 1.2/50, 500 V (IEC61643-21)	150 operations
	600 V rms, 1 A, 0.2 s	5 operations

Operating and Storage Temperature,
Climatic Category (IEC 6068-1) 40 / 90 / 21

Notes:

- **UL Recognized component, UL File E153537.**
- Surge polarity should be reversed between consecutive surges (+--+).
- At delivery AQL 0.65 Level II, DIN ISO 2859.

Applications

Port Protection	GDT Device P/N	TBU® Device P/N
CanBus	2031-23T-SM-RPLF	TBU-CA065-100-WH
RS232	2031-23T-SM-RPLF	TBU-CA065-200-WH
RS422	2031-23T-SM-RPLF	TBU-CA065-200-WH
RS485	2031-23T-SM-RPLF	TBU-CA065-200-WH
RS485	2031-42T-SM-RPLF	TBU-CA085-200-WH
SDI	2031-23T-SM-RPLF	TBU-CA065-100-WH
VDSL	2031-15T-SM-RPLF	TBU-CA050-500-WH

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*RoHS Directive 2002/95/EC Jan. 27, 2003 including annex and RoHS Recast 2011/65/EU June 8, 2011.

Specifications are subject to change without notice.

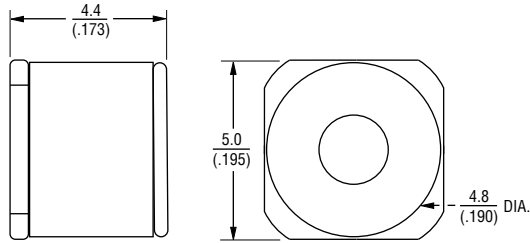
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

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BOURNS®

Product Dimensions

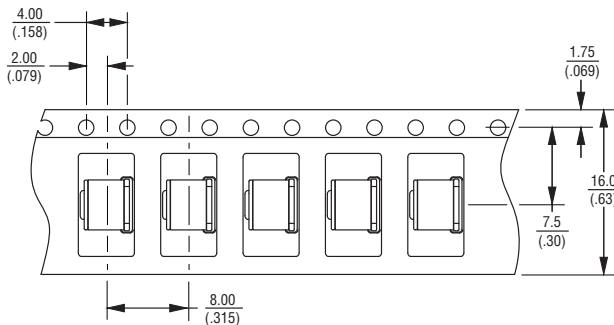


Packaging Specifications

The Model 2031-xxT-SM ships standard bulk pack, 250 pieces per bag; 1000 pieces per box.

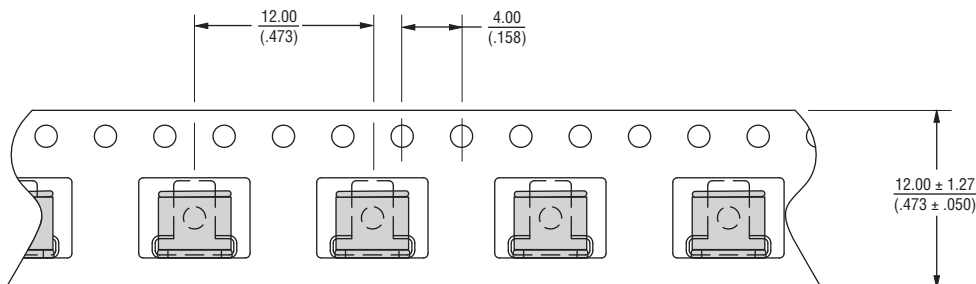
-RP

The optional -RP reelpack contains 1,500 pieces per reel. Reel is 13 inches in diameter and 3/4 inch wide.



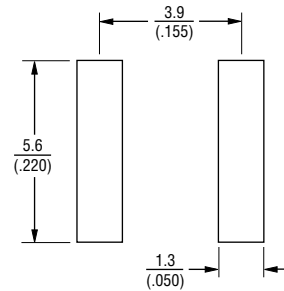
-RP3

The optional -RP3 reelpack contains 1,000 pieces per reel. Reel is 13 inches in diameter and 11/16 inch wide.



DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

Recommended Pad Layout



DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$

How to Order

Model Number Designator 2031 - xxT - SM - RP LF

Voltage _____
 15 = 60 V
 23 = 185 V
 42 = 360 V

Surface Mount _____

Packaging Options _____
 Blank = Bulk Packaging - 250 pcs./bag (Standard)
 RP = Reelpack - 1,500 pcs./reel (Optional)
 RP3 = Reelpack - 1,000 pcs./reel (Optional)

RoHS Compliant Option _____
 Blank = Standard Product
 LF = RoHS Compliant Product

REV. D 01/14

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